

## **CLAIMS**

What is claimed is:

1. A method of providing placement of graphical objects on a page accessible by a user, the graphical objects including graphic and text symbols, the page having positions for receipt of the objects, each object having at least one of a link to information, the link being invoked by an event identifying the object by a computer pointing device, the method comprising the steps of:

storing and retrieving performance data associated with the likelihood of the event occurring for each object; and

arranging the objects on the page according to the performance data.

2. The method according to Claim 1, wherein the performance data is used to calculate a likelihood that the event will occur, and the arranging of the objects is prioritized according to this likelihood calculation.

3. The method according to Claim 2, wherein each object has an associated weighting factor, the likelihood calculation is multiplied times the weighting factor, and the arranging of the objects is prioritized according to this product

4. The method according to Claim 1, wherein the likelihood calculation includes computing a statistical probability that a user will identify the object.

5. The method of Claim 4, wherein the performance data for the objects has been grouped and sorted according to user characteristics, and the statistical probability is computed based upon the user information, and upon past performance data for that object.

1           6. The method according to Claim 3, wherein the objects include  
2 advertisements and the weighting factor includes the price of the advertisement.

1           7. The method according to Claim 4, wherein the price of the  
2 advertisement is measured by the amount paid by the advertiser for each time a  
3 user identifies the advertisement.

1           8. The method according to Claim 1, wherein the page includes a  
2 webpage, on at least one website, accessible by an Internet based system, and  
3 the link includes a Uniform Resource Locator.

1           9. A method of providing for placement of graphical objects on a  
2 page accessible by a user, the graphical objects including graphic and text  
3 symbols, the page having positions for receipt of the objects, each object having  
4 a link to information, the link being invoked by an event identifying the object  
5 by a computer pointing device, the method comprising the steps of:

6           receiving a request for a page from a user;  
7           collecting and storing information about the user;  
8           retrieving graphical objects for possible inclusion in the page which  
9 have been grouped according to the user information;  
10          retrieving past performance data about the graphical objects;  
11          calculating a likelihood that a graphical object will experience an event  
12 based upon the past performance data; and  
13          returning the requested page to the user with the graphical objects which  
14 have a higher event likelihood being arranged in more visually prominent  
15 positions on the page.

1           10. The method of providing for placement of graphical objects on a  
2 page according to Claim 9, wherein each object has an associated weighting

3 factor, the likelihood calculation is multiplied times the weighting factor, and  
4 the arranging of the objects is prioritized according to this product.

1 11. The method of providing for placement of graphical objects on a  
2 page according to Claim 9, wherein the user information is stored in a  
3 centralized database, with the user information accessible via a user  
4 identification tag assigned to each user.

1 12. The method of providing for placement of graphical objects on a  
2 page according to Claim 11, wherein the method is employed by a system  
3 including at least one host site, the site including at least one webpage, and if  
4 the user is new to the system, the step of collecting and storing information  
5 about the user includes the following steps:

6 redirecting the user request for a page from the site over to a processing  
7 device for recognizing the user;

8 using the processing device to extract and collect information about the  
9 user;

10 storing this information in the centralized database under the user  
11 identification tag;

12 passing a processing device cookie file, which includes the identification  
13 tag, back to the user;

14 redirecting the user from the processing device to the site with the  
15 identification tag attached to the request;

16 retrieving the user information databased under the identification tag;  
17 and

18 wherein the final step of the Claim further includes returning a cookie  
19 file from the site to the user, the cookie file including the identification tag.

1 13. The method of providing for placement of graphical objects on a  
2 page according to Claim 11, wherein the method is employed by a system

3 including at least one host site, the site including at least one page, and if the  
4 user is new to the site but has previously visited the system, the step of  
5 collecting information about the user to the website includes the following  
6 steps:

7 redirecting the user request to the site over to a processing device for  
8 recognizing the user, along with a processing device cookie file which already  
9 exists for the user;

10 redirecting the user from the processing device to the site with the  
11 identification tag attached to the request;

12 retrieving the user information databased under the identification tag;  
13 and

14 wherein the final step of the Claim further includes returning a cookie  
15 file from the site to the user, the cookie file including the identification tag.

1 14. The method of providing for placement of graphical objects on a  
2 page according to Claim 11, wherein the method is employed by a system  
3 including at least one host site, the site including at least one page, wherein if  
4 the user has previously visited the site and the system, the step of collecting  
5 information about the user to the site includes the following steps:

6 receiving a cookie file including the user identification tag along with  
7 the request for a page; and

8 retrieving the user information databased under the identification tag.

1 15. The method of providing for placement of graphical objects on a  
2 page according to Claim 9, wherein the performance data includes counts of a  
3 user identifying an object (click-through counts) and counts of each time an  
4 object is displayed (impression counts), and the step of calculating a likelihood  
5 uses a summation of click-through counts, and a summation of impression  
6 counts, along with the prior likelihood for each advertisement.

1           16. The method of providing for placement of graphical objects on a  
2 page according to Claim 15, wherein the prior likelihood is set to a high value  
3 for objects which are new to the system.

1           17. The method of providing for placement of graphical objects on a  
2 page according to Claim 9, wherein a device is employed for creating and  
3 maintaining data groups which are differentiated by user characteristics, the  
4 processor also being used for sorting and storing performance data concerning  
5 the objects into the new and existing data groups.

1           18. The method of providing for placement of graphical objects on a  
2 page according to Claim 17, wherein the device runs periodically in the  
3 background.

1           19. A system for providing placement of graphical objects on a page  
2 accessible by a user, the graphical objects including graphic and text symbols,  
3 the page having positions for receipt of the objects, each object having at least  
4 one of a link to information, the link being invoked by an event identifying the  
5 object by a computer pointing device, the system comprising:  
6           a device for storing data associated with the past performance of an  
7 object;  
8           a server for prioritizing objects on a page according to the data.

1           20. The system according to Claim 19, wherein the server performs a  
2 calculation which predicts the likelihood of an event occurring for the object,  
3 and the server prioritizes the objects on the page according to this calculation.

1           21. The system according to Claim 20, wherein a weighting factor  
2           for each object is multiplied times the likelihood of an event occurring, and the  
3           server prioritizes the objects on the page according to this product.

1           22. The system according to Claim 19, which further includes a  
2           device for creating and arranging data groups for storing the data associated  
3           with the past performance of an object.

1           23. The system according to Claim 22, wherein the data groups are  
2           delineated by user characteristics.

1           24. The system according to Claim 23, which further includes a  
2           device for gathering and storing user information.

1           25. The system according to Claim 24, wherein the server collects a  
2           set of objects associated with the user information, and the server performs a  
3           calculation which predicts the likelihood of an event occurring for each object  
4           within the set from the data associated with the past performance of the object,  
5           and the server prioritizes the objects on the page according to this calculation.

1           26. The system according to Claim 24, wherein the server collects a  
2           set of objects associated with the user information, and the server performs a  
3           calculation which predicts the likelihood of an event occurring for each object  
4           within the set from the data associated with the past performance of the object,  
5           a weighting factor for each object is multiplied times the likelihood of an event  
6           occurring, and the server prioritizes the objects on the page according to this  
7           product.

1           27. A system for providing placement of graphical objects on a page  
2           accessible by a user, the graphical objects including graphic and text symbols,

3 the page having positions for receipt of the objects, each object having at least  
4 one of a link to information, the link being invoked by an event identifying the  
5 object by a computer pointing device, the system comprising:

6 a device for recognizing users which collects and provides information  
7 about users of the system;

8 a device for creating and arranging data groups according to user  
9 characteristics;

10 a database which stores statistical performance data about the objects  
11 according to the data groups;

12 a database for storing advertisement and content information for possible  
13 placement on the page; and

14 an advertisement server which:

15 receives a request for a page from a user;

16 retrieves user information from the device for recognizing users;

17 retrieves advertisements for possible placement on the page from  
18 the database using the user information;

19 calculates a likelihood that an event will occur for each object by  
20 retrieving and using the statistical performance data from the database; and

21 returns the page with the objects arranged according to their  
22 event likelihood.

1 28. The system according to Claim 27, wherein the device for  
2 recognizing users interacts with a centralized database which uses identification  
3 tags assigned to each user for accessing user information.

1 29. The system according to Claim 27, wherein the system further  
2 includes devices for counting when a user identifies an advertisement (click-  
3 through counts), and the times an advertisement is displayed (impression  
4 counts), and the information is logged into a database.

1           30. The system according to Claim 29, wherein the logged  
2 information is processed, according to direction from the device for creating and  
3 arranging data groups according to user characteristics, to provide the statistical  
4 performance data in the respective database.

1           31. The system according to Claim 30, wherein the processing is  
2 performed periodically as a background task.

1           32. The system according to Claim 27, wherein an interface is also  
2 provided which allows access to view the statistical performance data associated  
3 with an object.

1           33. The system according to Claim 27, wherein an interface is also  
2 provided which facilitates placement of objects within the database for storing  
3 advertisement and content information.

1           34. A system for providing placement of graphical objects on a page  
2 accessible by a user, the graphical objects including graphic and text symbols,  
3 the page having positions for receipt of the objects, each object having at least  
4 one of a link to information, the link being invoked by an event identifying the  
5 object by a computer pointing device, the system comprising:  
6           means for arranging and storing objects according to data groups of user  
7 characteristics;

8           means for receiving a request for a page from a user;

9           means for collecting information about the user;

10          means for retrieving objects from data groups corresponding to the user  
11 information;

12          means for calculating the likelihood of an event occurring; and

13 means for returning the requested page to the user with the objects  
14 arranged according to the event likelihood calculation for each object.

35. The system according to *Claim 34*, wherein the system also includes a means for multiplying the event likelihood calculation times a weighting factor for each object to yield a product, and the requested page is returned to the user with objects having a higher resulting product arranged in the more visually prominent positions on the page.

Diagram illustrating two parallel processes:

- Top arrow: Add A<sub>1</sub>
- Bottom arrow: Add B<sub>1</sub>